

**IT IS THE VENDOR'S RESPONSIBILITY TO  
CHECK FOR ADDENDA PRIOR TO SUBMITTING PROPOSALS**

**NOTICE TO BIDDERS  
SPECIFICATION NO.04-106**

The City of Lincoln, Nebraska intends to purchase and invites you to submit a sealed bid for:

**WATER BORNE PAINT STRIPER FOR THE  
TRAFFIC ENGINEERING DIVISION**

Sealed bids will be received by the City of Lincoln, Nebraska on or before 12:00 noon Wednesday, April 21, 2004 in the office of the Purchasing Agent, Suite 200, K Street Complex, Southwest Wing, 440 South 8th Street, Lincoln, Nebraska 68508. Bids will be publicly opened and read at the K Street Complex.

Bidders should take caution if U.S. mail or mail delivery services are used for the submission of bids. Mailing should be made in sufficient time for bids to arrive in the Purchasing Division, prior to the time and date specified above.

**EQUIPMENT SPECIFICATIONS**  
**AIRLESS TRUCK -MOUNTED HIGHWAY STRIPER**

**1. INTENT**

- 1.1 The intent of this specification is to describe a truck-mounted self-contained dual color, airless application striping machine. The machine shall apply reflectorized lines utilizing a water base (latex) traffic paint and glass beads.
  - 1.1.1 The equipment must be capable of applying this material at a temperature of 50 degrees F. on clean, dry pavement.
  - 1.1.2 The machine shall be capable of applying two (2) lines from the left side of unit and one (1) on the right, in either a solid or skip pattern, or combination of these patterns.
- 1.2 The machine shall operate up to 10 M.P.H. All truck components and materials shall conform the truck manufactures recommendations and the Federal S.A.E Standards.
- 1.3 This bid will include providing, testing, training and delivery of a complete Truck-Mounted Striper, ready for operation as more clearly described in the technical specifications.
- 1.4 Complete unit must meet all Federal/State/Local and OSHA safety standards.

**2. APPLICATION**

- 2.1 This Truck-Mounted Striper will be utilized by The City of Lincoln Public Works and Utilities Department in striping of both arterial streets where ease of operation and maneuverability is essential and highway striping.

**3. MODEL**

- 3.1 Equipment being bid shall be new and of current model of proven performance under standard production by the manufacture.
  - 3.1.1 Equipment shall be furnished complete as regularly advertised and marketed, including all specified accessories, tools, manuals and special features.
  - 3.1.2 All standard equipment shall be provided even through such items may not be specifically mentioned in these specifications.
  - 3.1.3 The following example model is provided solely to indicate the size, type and class of equipment requested:
    - 3.1.3.1 GMC W5S042 Cab/Chassis with M-B Companies "Econ-Liner" striping unit
- 3.2 Primary design considerations as follows:
  - 3.2.1 Truck-mounted, self contained airless design.

**4. RESPONSIBILITY OF BIDDERS**

- 4.1 Responding bidders must supply the following information:
  - 4.1.1 Engineering quality 1/16" scale drawings of a completely operational Truck-Mounted Striper to include all dimensional, component location and weight distribution information of the machine being bid.
  - 4.1.2 List of recent sales of similar design Truck-Mounted Stripers , to include the company name, address, contact, telephone number, delivery date and equipment model.
  - 4.1.3 Exceptions to any part of this bid document shall be clearly noted by item #on your company letter head and signed by the appropriate authority.

## **5. BID AWARD CRITERIA**

- 5.1 Conformance to the Equipment Specifications concerning the size, type and class of the Truck-Mounted Stripper being offered, and the ability to provide specific equipment as indicated in the technical specifications.
- 5.2 Product and company performance history as determined through equipment customers and volume of product produced.
- 5.3 Bidders ability to provide product support (i.e. parts, service, training and technical assistance).
- 5.4 Previous experience with both the bidder and the product being offered.
- 5.5 Best overall value to The City of Lincoln.
- 5.6 Delivery schedule.

## **6. LICENSING REQUIREMENTS**

- 6.1 All bidders must comply with the licensing requirements for motor vehicle dealers established under the Motor Vehicle Industries Licensing Act, Nebraska Revised Statutes, Chapter 60, Article 14.
  - 6.1.1 **The licensing requirements must be met at the time of the bid opening for the bid to be valid.**
  - 6.1.2 **Bids not meeting this requirement will be immediately rejected.**

### **CAB/CHASSIS**

Company Name \_\_\_\_\_

Meets Specs.

Yes No

### **7. MODEL**

- \_\_\_ 7.1 New 2004 of the latest improved model in current production as offered to the commercial trade.
- \_\_\_ 7.2 2004 GMC Model # W5S042, 17,950 lb. GVWR or approved equal.

### **8. WHEEL BASE AND CAB TO AXLE**

- \_\_\_ 8.1 Approximately 109 in. wheel base with usable cab to axle of 88 in. minimum.
- \_\_\_ 8.2 Minimum 40 in. after frame.

### **9. ENGINE**

- \_\_\_ 9.1 4.75 L, Isuzu 4HE1-TC, 175 GHP @ 2700 RPM diesel engine or approved equal.

### **10. ENGINE EQUIPMENT**

- \_\_\_ 10.1 Dry type single element air cleaner.
- \_\_\_ 10.2 Air cleaner mounted air filter restriction indicator.
- \_\_\_ 10.3 Peak "Final Charge" coolant with inhibitor, engine coolant to - 35F.
  - \_\_\_ 10.3.1 No exception on brand and type of coolant requested.

Meets Specs.

Company Name \_\_\_\_\_

Yes No

- |     |     |       |  |
|-----|-----|-------|--|
| ___ | ___ | 10.4  | Spin on type coolant filter (if recommended by engine manufacture).                  |
| ___ | ___ | 10.5  | Engine mounted spin on fuel filter.  |
| ___ | ___ | 10.6  | Fuel system primer pump.   |
| ___ | ___ | 10.7  | Spin on oil filter.  |
| ___ | ___ | 10.8  | Magnetic engine oil drain plug.  |
| ___ | ___ | 10.9  | Key operated electric shut down.   |
| ___ | ___ | 10.10 | Electronic cruise control with the lowest activation speed possible.                 |
| ___ | ___ | 10.11 | Electronic engine system diagnostics.  |
| ___ | ___ | 10.12 | Electronic shut down system for high engine temperature and low engine oil pressure. |

**11. EXHAUST SYSTEM**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 11.1 | Horizontal muffler with horizontal exhaust. |
|-----|-----|------|---|

**12. FUEL TANK**

- |     |     |      |                                    |
|-----|-----|------|------------------------------------|
| ___ | ___ | 12.1 | 30 gallon minimum steel fuel tank. |
|-----|-----|------|------------------------------------|

**13. TRANSMISSION**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 13.1 | Aisin 450-43 LE, 4-speed automatic.           |
| ___ | ___ | 13.2 | Manufactures recommended transmission cooler. |

**14. FRONT AXLE**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 14.1 | I-beam type 6,830 lb. capacity.                                       |
| ___ | ___ | 14.2 | Integral hydraulic power steering.                                    |
| ___ | ___ | 14.3 | Stemco High Performance "Guardian" unitized wet seal or equal design. |

**15. FRONT SUSPENSION**

- |     |     |      |  |
|-----|-----|------|--|
| ___ | ___ | 15.1 | Minimum 8,440 lb. capacity tapered leaf springs. |
| ___ | ___ | 15.2 | Heavy duty shock absorbers.                      |
| ___ | ___ | 15.3 | Front stabilizer bar.                            |

**16. REAR AXLE**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 16.1 | Single speed, single reduction 14,550 lb. capacity. |
| ___ | ___ | 16.2 | Rear axle ratio, approximately 5.86 to 1.           |

**17. REAR SUSPENSION**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 17.1 | Minimum 14,550 lb. capacity semi-elliptical main and auxiliary springs. |
| ___ | ___ | 17.2 | Heavy duty shock absorbers.   |

**18. FRAME**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 18.1 | Minimum yield strength 44,000 psi., section modulus 7.2 cu. in. |
| ___ | ___ | 18.2 | Minimum 316,800 lb-ft/in. RBM.                                  |

Meets Specs.  
Yes No

Company Name \_\_\_\_\_

**19. WHEELS**

- \_\_\_\_ 19.1 19.5 X 6.0, 6-hole steel disc.  
\_\_\_\_ 19.2 Painted white in color.

**20. TIRES**

- \_\_\_\_ 20.1 Front and rear tires to be 225/70R19.5 F (12 ply), tubless radial, all season tread.  
\_\_\_\_ 20.2 One spare wheel and tire, same brand and model as furnished on the truck.

**21. BRAKES**

- \_\_\_\_ 21.1 Dual circuit, vacuum assisted hydraulic service brakes.  
\_\_\_\_ 21.2 Non-asbestos linings with 4-channel anti-lock brake system.  
\_\_\_\_ 21.3 Front disc and outboard rear drum design.  
\_\_\_\_ 21.4 Transmission mounted mechanical park brake.

**22. ELECTRICAL SYSTEM**

- \_\_\_\_ 22.1 12 volt.  
\_\_\_\_ 22.2 Two (2) 750 CCA heavy duty 12 volt maintenance free batteries.  
\_\_\_\_ 22.3 Delco 22-SI 110 amp capacity alternator.  
\_\_\_\_ 22.4 Circuit breaker of fuse system protection.

**23. CAB**

- \_\_\_\_ 23.1 Fully enclosed tilt-type all steel cab with medium trim level.  
\_\_\_\_ 23.2 45 degree mechanical tilt with torsion assist.  
\_\_\_\_ 23.3 Cab to have a minimum of 70 inches of shoulder room per specification sheet.  
\_\_\_\_ 23.4 Cab to have a minimum of 42 inches of head room per specification sheet.

**24. CAB EQUIPMENT**

- \_\_\_\_ 24.1 High back, cloth covered air ride drivers and passenger seats with 3-point seat belts.  
\_\_\_\_ 24.2 Low back, cloth covered, fold down center seat with 2-point seat belt.  
\_\_\_\_ 24.3 Dual entry grab handles.  
\_\_\_\_ 24.4 Dual door mounted arm rests.  
\_\_\_\_ 24.5 Dual sun visors.  
\_\_\_\_ 24.6 Headliner and insulated rubber floor mat.  
\_\_\_\_ 24.7 AM-FM radio.  
\_\_\_\_ 24.8 Interior color shall be the lightest standard color available.  
\_\_\_\_ 24.9 High output heater, defroster and air conditioning.  
\_\_\_\_ 24.10 Tinted safety glass on all windows.  
\_\_\_\_ 24.11 Power driver and passenger side windows.

Meets Specs.

Company Name \_\_\_\_\_

Yes No

- \_\_\_ \_\_\_ 24.12 Deluxe insulation package.  
\_\_\_ \_\_\_ 24.13 Power door locks.  
\_\_\_ \_\_\_ 24.14 Tilt and telescoping steering column.

## **25. CONTROLS AND INSTRUMENTS**

- \_\_\_ \_\_\_ 25.1 Key locking starter switch.  
\_\_\_ \_\_\_ 25.2 Head, park and dome light switch.  
\_\_\_ \_\_\_ 25.3 High beam indicator.  
\_\_\_ \_\_\_ 25.4 Self canceling turn signal switch with integral dimmer.  
\_\_\_ \_\_\_ 25.5 Gauge cluster to be English with electronic speedometer.  
\_\_\_ \_\_\_ 25.6 Visual and audible warning system as follows:  
\_\_\_ \_\_\_ 25.6.1 Low engine oil pressure.  
\_\_\_ \_\_\_ 25.6.2 High engine coolant temperature.  
\_\_\_ \_\_\_ 25.7 Gauge cluster as follows:  
\_\_\_ \_\_\_ 25.7.1 Engine oil pressure.  
\_\_\_ \_\_\_ 25.7.2 Engine coolant temperature.  
\_\_\_ \_\_\_ 25.7.3 Fuel level.  
\_\_\_ \_\_\_ 25.7.4 Voltmeter.  
\_\_\_ \_\_\_ 25.7.5 Tachometer.  
\_\_\_ \_\_\_ 25.7.6 Engine hour meter.  
\_\_\_ \_\_\_ 25.8 Digital speed meter system as follows:  
\_\_\_ \_\_\_ 25.8.1 A digital speed meter shall be included, that will allow the truck operator to read his speed in three digits to aid him in maintaining a desired speed.  
\_\_\_ \_\_\_ 25.8.2 The system shall include a digital control meter having three ½ inch digits, readable without error from approximately 20 feet, with the last digit reading in 1/10 MPH and having an accuracy of 1/2% for full scale.  
\_\_\_ \_\_\_ 25.8.3 The signal source shall be a logic level pulsing unit driven by a pulse generator mounted off the drive line. The 12 volt DC power for the system shall be provided by the airless unit and be separately fused.

## **26. WINDSHIELD WIPERS**

- \_\_\_ \_\_\_ 26.1 Two speed electric with electric washers and intermittent feature.

## **27. MIRRORS**

- \_\_\_ \_\_\_ 27.1 Door mounted west coast mirrors with 8" auxiliary convex mirrors.

Meets Specs.

Company Name \_\_\_\_\_

Yes No

**28. LIGHTS**

- |     |     |      |  |
|-----|-----|------|--|
| ___ | ___ | 28.1 | Vehicle shall be equipped with all required and manufactures recommended lights to comply with FMVSS 108 and ICC requirements. |
| ___ | ___ | 28.2 | Halogen headlights with daytime running lights.  |
| ___ | ___ | 28.3 | Parking lights integral with front turn signal and tail lights.  |
| ___ | ___ | 28.4 | Hazard flashers.   |
| ___ | ___ | 28.5 | Interior dome light.   |

**29. MISCELLANEOUS EQUIPMENT**

- |     |     |      |  |
|-----|-----|------|--|
| ___ | ___ | 29.1 | Steel front bumper.  |
| ___ | ___ | 29.2 | Dual electric horns.   |
| ___ | ___ | 29.3 | Electronic backup alarm (Preco factory model)                        |
| ___ | ___ | 29.4 | Front and rear mud flaps.  |
| ___ | ___ | 29.5 | Two (2) 20 lb. Ansul or approved equal dry power fire extinguishers. |

**30. CAB FINISH**

- |     |     |      |  |
|-----|-----|------|--|
| ___ | ___ | 30.1 | Cab shall be manufactures standard white in color. |
|-----|-----|------|--|

## **AIRLESS STRIPER**

Meets Specs.

Company Name \_\_\_\_\_

Yes No

### **31. PLATFORM**

- \_\_\_ \_\_\_ 31.1 Steel platform of adequate size to accommodate all relevant equipment.
- \_\_\_ \_\_\_ 31.2 The bed shall not exceed 93 inches in total width, including all projections, and shall be approximately 96 inches long.
- \_\_\_ \_\_\_ 31.3 The platform framing shall be constructed of 3 inch x 4.1# channel cross members on a maximum 18 inch centers.
- \_\_\_ \_\_\_ 31.4 The front corners of the bed shall be built on an angle so the bed will not interfere with the carriages when in the up position.
- \_\_\_ \_\_\_ 31.5 The bed shall be welded to 5 inch x 6.7# channel.
- \_\_\_ \_\_\_ 31.6 The channel shall run the full length of the platform and be bolted to the chassis rails by four (4) 3/8" thick steel plates (two per side).
- \_\_\_ \_\_\_ 31.7 Wood sills shall be placed between the platform long sills and the chassis frame rails to dampen the loading of the platform to the chassis frame rails.
- \_\_\_ \_\_\_ 31.8 No drilling or welding to the chassis frame rails will be allowed.
- \_\_\_ \_\_\_ 31.9 The platform shall have a 1/8 inch medium pattern steel safety tread surface.
- \_\_\_ \_\_\_ 31.10 Ladders with skid resistant steps shall be furnished on both street and curb sides of the platform with grab bars for ease of operator entry.
- \_\_\_ \_\_\_ 31.11 Steel railing shall be installed around the platform where necessary and bolted in place. Side railing vertical uprights shall be 30 inches high with the railing at the rear of the operators stations being 42 inches high.
- \_\_\_ \_\_\_ 31.12 All railings shall have mid level cross members and be constructed of 1 1/4" square tubing.
- \_\_\_ \_\_\_ 31.13 Railing corners shall be rounded for operators safety.
- \_\_\_ \_\_\_ 31.14 A bumper shall extend across the rear of the platform and be constructed of 4" x 5.4# channel with end caps.
- \_\_\_ \_\_\_ 31.15 Installation of the rear bumper shall provide a mounting height of approximately 15 inches above the road surface.

### **32. PAINT SUPPLY**

- \_\_\_ \_\_\_ 32.1 Striper shall have paint storage capacity of 330 gallons in non-pressure compartmentalized containers, with one (1) 220 gallon section for yellow paint and one (1) 110 gallon section for white paint.
- \_\_\_ \_\_\_ 32.2 The tanks shall be constructed of a UV stable black polypropylene material measuring 1/2" thick and each compartment shall have a paint level height panel facing each operator.



Meets Specs.  
Yes No

Company Name \_\_\_\_\_

- |     |     |       |   |
|-----|-----|-------|---|
| ___ | ___ | 32.3  | Tanks to be of all welded construction.   |
| ___ | ___ | 32.4  | One 18" diameter opening access lid using poly material construction shall be installed on the top of each tank.  |
| ___ | ___ | 32.5  | The lids and gaskets shall be held firmly in place utilizing metal studs and wing nuts.                           |
| ___ | ___ | 32.6  | Each lid shall contain three (3) 2" NPT coupling, one for agitator, one for paint suction tube and one auxiliary. |
| ___ | ___ | 32.7  | One (1) 3" NPT coupling for the vent system shall be provided.  |
| ___ | ___ | 32.8  | A poly type vacuum/vent combination unit shall be included.   |
| ___ | ___ | 32.9  | Each tank shall have a 2" NPT drain at the bottom and a 3/4" NPT coupling in the top for paint recirculation.     |
| ___ | ___ | 32.10 | Paint tanks shall be securely bolted to the platform over a isolation mat.  |
| ___ | ___ | 32.11 | Paint tanks shall carry a non-prorated life time warranty.  |

### **33. PAINT CONTAINER AGITATION SYSTEM**

- |     |     |      |   |
|-----|-----|------|---|
| ___ | ___ | 33.1 | Air driven <u>self-contained</u> agitation system with mixer/agitator controls.   |
| ___ | ___ | 33.2 | The agitator system will be specifically designed to mix paint in the paint container without removing the lid.   |
| ___ | ___ | 33.3 | The system will operate on 50-100 psi of compressed air and include a 40" probe, 2" bung adapter, filter, regulator, with 10' of self coiling hose with quick disconnect fittings.  |
| ___ | ___ | 33.4 | The agitation system shall be self-contained to the extent being easily inserted and removed from the paint containers and also have the capability of being utilized to mix paint in 55 gallon drums prior to loading. (Note: It is the intent of the City to utilize a current facility air source to power the agitation system) |

### **34. TWO COLOR PAINT FILL SYSTEM**

- |     |     |        |   |
|-----|-----|--------|---|
| ___ | ___ | 34.1   | Complete <u>self-contained</u> fill system for pumping directly out of 55 gallon drums.   |
| ___ | ___ | 34.1.1 | Fill system will be capable of simultaneously filling both paint containers.  |
| ___ | ___ | 34.2   | Two (2) Acetal constructed double diaphragm pumps capable of suppling waterborne paint at 8 GPM each..  |
| ___ | ___ | 34.3   | The pumps will be air operated designed with stainless steel guide and ball construction with Teflon diaphragms.  |
| ___ | ___ | 34.4   | The system will include 55 gallon drum mount intake assemblies and 17' outlet systems complete with all required air and paint hoses, ball valves and fittings required for fast efficient filling of paint containers.<br>(Note: It is the intent of the City to utilize a current facility air source to power the paint fill system) |

Meets Specs.  
Yes No

Company Name \_\_\_\_\_

### **35. SOLVENT CLEANING SYSTEM**

- \_\_\_ \_\_\_ 35.1 Complete integral solvent cleaning system shall be provided.
- \_\_\_ \_\_\_ 35.1.1 A 20 gallon non-pressure solvent tank built into one of the paint tanks.
- \_\_\_ \_\_\_ 35.1.2 The tank shall be constructed of the same UV stabilized black polypropylene material as the paint tank.
- \_\_\_ \_\_\_ 35.1.3 The lid shall consist of one 3" NPT coupling with a 3" PVC ventilated plug for filling.
- \_\_\_ \_\_\_ 35.1.4 The cleaning tank shall be plumbed to each high-pressure paint pump through a 1/2" NPT stainless steel 3-way ball valve to select either paint or cleaning solution to the pump.
- \_\_\_ \_\_\_ 35.1.5 In the cleaning mode, cleaner solution will enter the suction side of the paint pump and be pumped out through the guns.

### **36. PAINT GUNS**

- \_\_\_ \_\_\_ 36.1 Four (4) airless paint guns shall be furnished and be Graco Model 238- 332.(OR APPROVED EQUAL)
- \_\_\_ \_\_\_ 36.2 All wetted gun parts shall be 300 grade stainless steel including the entire fluid housing and packing assembly.
- \_\_\_ \_\_\_ 36.3 The paint gun outlet ball and ball seat shall be constructed of tungsten carbide.
- \_\_\_ \_\_\_ 36.4 The fluid outlet port shall be ported for extra high flow rates and viscosities with a paint outlet of no less than 3/8" diameter orifice.
- \_\_\_ \_\_\_ 36.5 Paint inlet ports shall be 3/8".
- \_\_\_ \_\_\_ 36.6 The packing needle shall feature a non-exposed, fully enclosed needle assembly that has provisions for instant painting nut adjustments without any disassembly.
- \_\_\_ \_\_\_ 36.7 The paint guns shall have a pressure rating of 3,000 PSI.
- \_\_\_ \_\_\_ 36.8 The actuation air chamber and the fluid section shall be divorced and separated to eliminate the possibility of paint entering the air chamber upon paint seal failure.
- \_\_\_ \_\_\_ 36.9 Each gun shall include two Graco Reverse-A-Clean (RAC) 5 Switch Tips (One 286-433 and one 286-425), tip guard.
- \_\_\_ \_\_\_ 36.10 Provisions shall be made to allow the guns to be easily and simply adjusted in all directions including up/down, side to side, forward and back.
- \_\_\_ \_\_\_ 36.11 Included will be a hand gun assembly to include a Graco flex gun Model 248-157 with all stainless steel wetted parts and complete with Graco RAC 4 Reverse-A-Clean Tip (286-425), tip guard, 18" tip extension, and 50' of 1/4" high pressure hose.

Meets Specs.

Company Name \_\_\_\_\_

Yes No

- \_\_\_ \_\_\_ 36.12 A hose rack shall be provided and will include a single knob, screw type, gun storage clamp to rigidly hold the gun in the storage position and help hold the racked hose in position.
- \_\_\_ \_\_\_ 36.13 The three, left (street) side paint guns shall be two (2) yellow and one (1) white.
- \_\_\_ \_\_\_ 36.14 The one, right (curb) side gun shall be double plumbed for dual color service utilizing color selection valves and components of 300 grade stainless steel.

### **37. GLASS SUPPLY**

- \_\_\_ \_\_\_ 37.1 A pressurized tank having a capacity of 2000 lb. of glass spheres shall be provided.
- \_\_\_ \_\_\_ 37.2 The tank is to be of all steel A.S.M.E. approved construction with a top opening of not less than 14" diameter.
- \_\_\_ \_\_\_ 37.3 A 0-60 psi pressure gauge, pressure regulator, 100 psi pressure relief valve and auto evacuating moisture trap are to be included and mounted on the tank.
- \_\_\_ \_\_\_ 37.4 The glass spheres are to be conveyed under pressure to the glass sphere dispensing guns through 1" ID, color coded, clear PVC tubes.
- \_\_\_ \_\_\_ 37.5 A visual and/or audible low bead warning system shall be provided.

### **38. BEAD GUNS**

- \_\_\_ \_\_\_ 38.1 Three (3) bead guns shall be furnished and be Graco Model 238-329. (OR APPROVED EQUAL).
- \_\_\_ \_\_\_ 38.2 Bead guns shall come complete with "no tools" quick change nozzles in 4 sizes to allow for accurate and repeatable bead flow rates from 0 to 40 pounds per minute per gun.
- \_\_\_ \_\_\_ 38.3 The bead guns shall have an oversized (Spherical) hardened stainless steel ball and seat outlet. The ball and seat shall be hardened to a hardness of not less than 37-40 on a Rockwell C scale.
- \_\_\_ \_\_\_ 38.4 The entire needle assembly shall be completely enclosed and not exposed to external bead and paint contamination.
- \_\_\_ \_\_\_ 38.5 The needle packing on the pressure bead guns shall be non-adjustable type and not require any packing adjustment throughout the life of the gun.
- \_\_\_ \_\_\_ 38.7 The bead guns shall have common and interchangeable parts with the specified paint guns.
- \_\_\_ \_\_\_ 38.8 The external housing of the bead guns shall be hard chrome for good wear characteristics and easy clean up.

Meets Specs.  
Yes No

Company Name \_\_\_\_\_

- \_\_\_ \_\_\_ 38.9 Bead spreader shall be surface hardened to a hardness of 78 to 82 on a 15N scale and be chrome plated for extended service and protection from the elements.
- \_\_\_ \_\_\_ 38.10 Air chamber and bead chambers within the gun shall be divorced and separate.
- \_\_\_ \_\_\_ 38.11 Each bead gun shall have the ability to uniformly apply beads in widths ranging from 2" to 12" in a single pass.
- \_\_\_ \_\_\_ 38.12 Bead guns shall be two (2) left (street) side and one (1) right (curb) side installation.
- \_\_\_ \_\_\_ 38.13 Bead system must be capable of applying "VISI-BEADS" per City of Lincoln Specification.

### **39. PAINT FILTERS AND INLET STRAINERS**

- \_\_\_ \_\_\_ 39.1 All 304/316 stainless steel filter assemblies shall be located at the outlet of each airless pump, for a total of three (3).
- \_\_\_ \_\_\_ 39.2 Each filter assembly shall include a replaceable 30 mesh stainless steel filter screen element.
- \_\_\_ \_\_\_ 39.3 Each filter shall have a minimum filtration area of not less than 18 square inches.
- \_\_\_ \_\_\_ 39.4 Filters shall be rated for a working pressure of 5,000 psi minimum.
- \_\_\_ \_\_\_ 39.5 The exterior of the filter cylinder housing shall be splined for easy hand disassembly and for easy reassembly without the use of hand tools.
- \_\_\_ \_\_\_ 39.6 Each filter shall have a combination pressure relief, dump and priming valve on the outlet side of the high pressure housing.
- \_\_\_ \_\_\_ 39.7 The combination valve shall be of all 300 grade stainless steel and feature a tungsten carbide seat and a hardened SST ball.
- \_\_\_ \_\_\_ 39.8 All three paint pumps shall be protected with individual suction side, 304/316 stainless steel paint strainers.
- \_\_\_ \_\_\_ 39.9 The total surface area of each suction side filter screen must be no less than 22 square inches.
- \_\_\_ \_\_\_ 39.10 Each of the stainless steel high pressure airless filters shall have two stainless steel 1/4" hand gun connectors with paint isolation shut off valves or paint shut off caps.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

**40. FITTINGS AND HOSE**

- \_\_\_ \_\_\_ 40.1 All paint hose, both on the suction and high-pressure side shall have nylon or Teflon core.
- \_\_\_ \_\_\_ 40.2 All paint hose end fittings and connectors (suction and high-pressure) shall have 300 grade stainless steel wetted parts.
- \_\_\_ \_\_\_ 40.3 All paint hose connections shall be NPSM type, having an initial tapered sealing surface with a secondary sealing surface being the actual threads.
- \_\_\_ \_\_\_ 40.4 The high-pressure 3/8" airless hose shall be rated for 3,000 psi minimum, statically grounded and feature a urethane cover.
- \_\_\_ \_\_\_ 40.5 In addition, spring guards are to be placed at both ends of all airless hose to minimize kinking.
- \_\_\_ \_\_\_ 40.6 All lengths of airless paint hose shall be color coded at both ends for quick identification.
- \_\_\_ \_\_\_ 40.7 Bead hose shall be 1" ID minimum, clear in color and of PVC material.
- \_\_\_ \_\_\_ 40.8 All air supply lines and fittings shall be reusable push-lock type and have adequate sized ID's and lengths for their intended functions.
- \_\_\_ \_\_\_ 40.9 All air supply lines shall be constructed of reinforced nylon with a minimum temperature rating of 200 degree F.
- \_\_\_ \_\_\_ 40.10 All paint and bead hoses leading out to the carriages shall be neatly contained and protected within a heavy duty polyethylene hose cover.

**41. SPRAY GUN CARRIAGE**

- \_\_\_ \_\_\_ 41.1 Two gun carriage assemblies shall be supplied, mounted in front of the vehicle's rear wheels, to support and align the spray guns.
- \_\_\_ \_\_\_ 41.2 The main carriage, mounted on the left (street) side of the vehicle, shall have provisions for attaching three (3) single color paint guns and two (2) glass sphere guns.
- \_\_\_ \_\_\_ 41.3 One wheel mounted on a caster axle, installed on the front of each carriage, shall support the carriage and maintain it at a fixed height from the road surface.
- \_\_\_ \_\_\_ 41.4 A parallel system shall connect the carriage to a cross slide and maintain the spray guns normal height to the road surface at all times.
- \_\_\_ \_\_\_ 41.5 A pneumatic lift cylinder controlled from the operator's position, shall be use to raise the carriage and a safety chain to support it during transport.
- \_\_\_ \_\_\_ 41.6 The cross slide supporting the carriage shall allow the carriage to be positioned for transport within the width of the vehicle's platform, and permit its use anywhere from this location outward for a distance of 3 feet.
- \_\_\_ \_\_\_ 41.7 The slide shall be fabricated from structural steel with the moving portion supported by UHMWPE material.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

- \_\_\_ \_\_\_ 41.8 The second spray gun carriage shall be provided and mounted along the right (curb) side of the striping unit approximately on the same lateral axis as the main carriage to align and support one (1) dual color paint spray gun and one (1) glass sphere gun.
- \_\_\_ \_\_\_ 41.9 The design of this carriage shall be identical to the main carriage, and it shall also extend 3 feet from the edge of the platform.
- \_\_\_ \_\_\_ 41.10 Each carriage shall be equipped with a hydraulic cylinder for moving the carriage to any point within the operating range.
- \_\_\_ \_\_\_ 41.11 The cylinder shall be double acting design, actuated through “joystick” type controls located at the operator’s station.
- \_\_\_ \_\_\_ 41.12 Hydraulic power for the operation shall be supplied by a 12 volt DC hydraulic power unit with a built-in two gallon reservoir and a ten (10) micron filter.
- \_\_\_ \_\_\_ 41.13 This power unit shall be proportional and be an “on demand” system.
- \_\_\_ \_\_\_ 41.14 Electrical power for this unit shall be provided through the chassis electrical system.
- \_\_\_ \_\_\_ 41.15 The DC motor shall be permanent magnet type.
- \_\_\_ \_\_\_ 41.16 **See attached gun configuration diagram for desired gun layout.**

#### **42. AUXILIARY POWER SYSTEM**

- \_\_\_ \_\_\_ 42.1 The engine shall be four cycle, twin cylinder, air cooled gasoline engine rated for 18 HP.
- \_\_\_ \_\_\_ 42.1.1 Kohler Command Model CH18 or approved equal.
- \_\_\_ \_\_\_ 42.2 The engine shall feature electric start and include a 12 volt fully sealed lead acid battery supplied with the system and a run activated engine hour meter.
- \_\_\_ \_\_\_ 42.3 A remote six (6) gallon fuel tank with integral fuel priming pump in the fuel line shall be supplied.
- \_\_\_ \_\_\_ 42.4 Overhead valve design, pressure lubricated with an integral 25 amp charging system and under platform remote mounted muffler.
- \_\_\_ \_\_\_ 42.5 The engine controls shall be an integrated part of the engine.
- \_\_\_ \_\_\_ 42.5.1 Controls that are separate from the engine are not acceptable.

#### **43. HYDRAULIC SYSTEM**

- \_\_\_ \_\_\_ 43.1 A pressure compensated vane type pump shall be provided and have a rated capacity of not less than 10.5 GPM.
- \_\_\_ \_\_\_ 43.2 The hydraulic pump shall provide a minimum operating pressure of 1500 psi.

Company Name \_\_\_\_\_

Meets Specs.

Yes No

- |     |     |        |  |
|-----|-----|--------|--|
| ___ | ___ | 43.3   | A 12 gallon capacity, steel construction oil supply reservoir shall be included and feature an integrated tank filter.   |
| ___ | ___ | 43.4   | The hydraulic system shall be closed loop design.  |
| ___ | ___ | 43.5   | A 12 volt DC electric oil cooling fan shall be provided to continuously force ambient temperature air through the hydraulic oil cooler radiator.   |
| ___ | ___ | 43.5.1 | Activation of the cooling fan will be through the chassis ignition switch.   |
| ___ | ___ | 43.5.2 | This cooling system shall be completely separate from any engine cooling system, with no common components.  |
| ___ | ___ | 43.6   | All hydraulic fittings shall be JIC type.  |
| ___ | ___ | 43.7   | All hydraulic hoses shall be color coded for easy visual identification and have a minimum pressure rating of 1500psi.   |
| ___ | ___ | 43.8   | The hydraulic loop shall have built in pump run-a-way valves (one for each pump) to limit the pumps cycle rate in a paint pump dry run condition or any other pump runaway condition.  |
| ___ | ___ | 43.8.1 | The restrictor shall allow each individual paint pumps to reach the intended application rates.  |
| ___ | ___ | 43.9   | All paint pumps shall include a color coded pump flow selector valve station to allow the bypass of hydraulic oil to the reservoir, to direct the oil flow to the pre-selected pump, two pumps or all three pumps for simultaneous three pump operation. |
| ___ | ___ | 43.10  | A single pressure control knob shall simultaneously and uniformly adjust the hydraulic pressure from 1-1500 psi to all airless pumps for simultaneous three pump operation.  |
| ___ | ___ | 43.11  | The hydraulic supply system shall be protected from contaminants by both a suction strainer with a minimum sized filtration area of 150 square inches and an oil return filter with a minimum sized filtration area of 17 square inches.                 |

#### **44. COMPRESSOR**

- |     |     |      |  |
|-----|-----|------|--|
| ___ | ___ | 44.1 | The compressor shall be rated for 10.6 CFM at 100 psi while operating at 1,200 RPM.  |
| ___ | ___ | 44.2 | Compressor shall be twin cylinder, air cooled and of aluminum construction.  |
| ___ | ___ | 44.3 | Compressor shall have an unloader device to accurately and precisely manage the compressed air when there is no demand. The unloader shall be preset at 10-100 psi and designed to unload to the atmosphere. |
| ___ | ___ | 44.4 | A safety pop-off valve set for 150 PSI shall be installed to further protect the compressed air system.  |

Company Name \_\_\_\_\_

Meets Specs.

Yes No

**45. AIRLESS PAINT PUMPS**

- |     |     |        |   |
|-----|-----|--------|---|
| ___ | ___ | 45.1   | The airless paint pumps shall be hydraulic driven, piston style pumps.  |
| ___ | ___ | 45.1.1 | Graco Model 238-349 (OR APPROVED EQUAL).  |
| ___ | ___ | 45.2   | All wet pump metallurgy shall be 303, 304 or 316 series grade stainless steel.  |
| ___ | ___ | 45.3   | The use of 400 grade (410 and 416) stainless steel is NOT ACCEPTABLE.   |
| ___ | ___ | 45.4   | The paint pump piston rod, check balls and piston sleeve shall be 316 stainless for corrosion resistance and then hard chrome plated for greater abrasion resistance.   |
| ___ | ___ | 45.5   | The airless pump packings shall be staggered leather and Ultra High Molecular Weight Polyethylene and have provisions for external adjustment of upper packing stack.   |
| ___ | ___ | 45.6   | The airless pumps wet cup shall be an enclosed design featuring packing cover protectors to prevent dirt or bead contamination into the wet cup and upper packing area. |
| ___ | ___ | 45.7   | A total of three (3) airless pumps will be provided with color dedication as follows:   |
| ___ | ___ | 45.7.1 | Two (2) yellow and one (1) white pump.  |
| ___ | ___ | 45.8   | The airless paint pumps shall be rated for continuous service with flow rates to 2.5 GPM and have a maximum paint discharge pressure of not less than 2,000 psi.        |
| ___ | ___ | 45.9   | A total of three (3) liquid filled fluid pressure gauges shall be provided and installed on the outlet of each airless pump.  |
| ___ | ___ | 45.10  | In addition to the standard packing stack, the piston packing shall include a reverse directed wiper packing.   |
| ___ | ___ | 45.11  | The upper packing stack shall include an additional leather packing as the sixth packing.   |
| ___ | ___ | 45.12  | The suction side of the airless paint pump shall include a barbed, straight suction hose fitting to allow direct, inline paint flow directly into the lower check ball. |
| ___ | ___ | 45.13  | The use of 90 degree fittings at the pump inlet or the use of a substitute airless pump that incorporated a 90 degree integral paint inlet is not the desired design.   |
| ___ | ___ | 45.14  | The fluid pump shall have a maximum working pressure rating of not less than 3,000 psi, although the system requires only 2,000 psi.                                    |



Company Name\_\_\_\_\_

Meets Specs.

Yes No

**46. STAINLESS STEEL CONSTRUCTION**

- \_\_\_ \_\_\_ 46.1 It is the intentions of these specifications to describe a road marking machine that utilizes 300 grade (303, 304, 316) stainless steel wetted metallurgy.
- \_\_\_ \_\_\_ 46.1.1 By wetted metallurgy we are referring to any metal part that is exposed or comes in contact with traffic paint.
- \_\_\_ \_\_\_ 46.1.2 No wetted parts are to be constructed of, or contain steel, carbon steel, galvanized steel, 400, 410, 416 grade stainless steel, cast iron, ductile iron, brass, bronze, copper, aluminum or zinc plating.

**47. GUIDANCE SYSTEM**

- \_\_\_ \_\_\_ 47.1 “HoloVision” Holographic Sight.
- \_\_\_ \_\_\_ 47.1.1 The truck shall be equipped with a holographic diffraction “Heads-Up” type sighting system.
- \_\_\_ \_\_\_ 47.1.2 The system shall be mounted inside the cab to allow the operator to adjust the sight unaided by another person.
- \_\_\_ \_\_\_ 47.1.3 The sight shall consist of a laser projected on an enclosed three-layer, shatterproof laminated window to prevent laser radiation from escaping from the housing.
- \_\_\_ \_\_\_ 47.1.4 The sight shall be waterproof (submersible), shock resistant and fog proof.
- \_\_\_ \_\_\_ 47.1.5 Minimum operating range of -20 to 150 degree F.
- \_\_\_ \_\_\_ 47.1.6 The sight shall have 20 levels of adjustable brightness control and have the ability to be used in all light levels without being washed out or obscured.
- \_\_\_ \_\_\_ 47.1.7 In the holography, all the information required to reconstruct the reticule image is recorded everywhere in the “Heads-Up” display window.
- \_\_\_ \_\_\_ 47.1.8 If the sight window is obstructed by dirt/film/smudges, water, etc. the sights remains fully operational, with the point of aim being maintained.
- \_\_\_ \_\_\_ 47.1.9 The sight shall be 12V hard wired and have a programable auto shutdown feature.(battery powered is not desired)
- \_\_\_ \_\_\_ 47.1.10 The sight shall be provided with a movable mount to accommodate various height operator.
- \_\_\_ \_\_\_ 47.1.11 The mounts shall have a three axis rotation.
- \_\_\_ \_\_\_ 47.1.12 The sight and mounts shall be detachable and a portable storage unit be provided.

Company Name \_\_\_\_\_

Meets Specs.

Yes No

**48. LIGHTING SYSTEM**

- \_\_\_ 48.1 Entire system to be installed in a neat and professional manner.
- \_\_\_ 48.2 All lights to meet FMVSS 108.
- \_\_\_ 48.3 Factory chassis stop/tail/turn/backup lights to be removed.
- \_\_\_ 48.4 Whelen Model DOT3-104D lighting system. (No Exception)
  - \_\_\_ 48.4.1 DOT3-104D light assembly shall be installed on the rear of the platform and include: Strobe/LED brake-tail/Incandescent backup lights.
  - \_\_\_ 48.4.2 Whelen ISP94 power supply to be cab mounted.
  - \_\_\_ 48.4.3 Heavy-duty corrosion resistant TPR jacketed cable set with “Deutsch” water proof connectors.
  - \_\_\_ 48.4.4 Strobe lenses to be amber.
- \_\_\_ 48.5 Two (2) platform mounted right (curb) and left (street) side carriage work lights.
  - \_\_\_ 48.5.1 Work lights shall be adjustable Truck-Lite halogen Model 610W.
- \_\_\_ 48.6 Whelen 49" Ultra-Freedom cab mounted light bar. (No Exception)
  - \_\_\_ 48.6.1 Four (4) rear facing LED amber strobes.
  - \_\_\_ 48.6.2 Two (2) rear facing halogen take-down lights.
  - \_\_\_ 48.6.3 Six (6) front facing LED amber strobes.
  - \_\_\_ 48.6.4 Front strobes/Rear strobes/Take-downs shall have the capability of being switched independently.
- \_\_\_ 48.7 Whelen Model PCCHD1 Power Control Console. (No Exception)
  - \_\_\_ 48.7.1 Control Console to be cab mounted and shall have LED on/off indicators with back lighted labels as follows:
    - \_\_\_ 48.7.1.1 Front Strobes.
    - \_\_\_ 48.7.1.2 Rear Strobes.
    - \_\_\_ 48.7.1.3 Take Downs
    - \_\_\_ 48.7.1.4 Tail Strobes.
    - \_\_\_ 48.7.1.5 Left Work Light.
    - \_\_\_ 48.7.1.6 Right Work Light.
- \_\_\_ 48.8 For information concerning Whelen Products (860-526-2009)
- \_\_\_ 48.9 Sequential flashing signboard as follows:
  - \_\_\_ 48.9.1 The striping unit shall have a directional sequential signboard, capable of flashing a directional arrow either left or right , mounted on the rear area of the equipment platform.
  - \_\_\_ 48.9.2 The signboard shall have a minimum of 15 hooded, LED lamps, with a dimension of approximately 36 inches by 72 inches. It shall be 12 volt with solid state circuitry and a minimum flash rate of 30 F.P.M.
  - \_\_\_ 48.9.3 The sign board shall be designed to pivot with the maximum height in upright position not to exceed 132 inches.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

**49. CONTROL SYSTEM**

- \_\_\_ \_\_\_ 49.1 Two single axis “joysticks” one (1) at each operator’s position for gun and carriage control.
- \_\_\_ \_\_\_ 49.1.1 The joystick shall be mounted on a vertical pivoting and telescoping mount for operators positioning.
- \_\_\_ \_\_\_ 49.1.2 The mount shall also have a forearm pad for comfort.
- \_\_\_ \_\_\_ 49.1.3 The “joystick” shall be fully proportional for outrigger movement and shall also have all gun switches and a carriage lift switch.
- \_\_\_ \_\_\_ 49.1.4 Electrical power for the “joystick” shall be provided through the chassis electrical system.
- \_\_\_ \_\_\_ 49.2 The spray system shall be controlled by pushbutton switches mounted on the “joystick”.
- \_\_\_ \_\_\_ 49.3 The skipline control box shall be mounted to a mounting plate that is attached to the glass tank.
- \_\_\_ \_\_\_ 49.3.1 The mount shall be constructed so the skipline box can be moved to both operator stations.
- \_\_\_ \_\_\_ 49.4 All electrical wiring shall be enclosed in conduit type protective case.
- \_\_\_ \_\_\_ 49.4.1 Any wires passing through the deck shall be protected by grommets.
- \_\_\_ \_\_\_ 49.5 All electrical controls shall be 12 volt only.
- \_\_\_ \_\_\_ 49.6 Two operator seats shall be mounted on the vehicle platform.
- \_\_\_ \_\_\_ 49.6.1 All shall be fitted with foam rubber cushions and backrest.
- \_\_\_ \_\_\_ 49.6.2 Each shall be fitted with seat belt in accordance with current S.A.E. and Federal Standards.
- \_\_\_ \_\_\_ 49.7 Water proof covers shall be supplied for the control panel and operator’s seat.

**50. INTERCOM SYSTEM**

- \_\_\_ \_\_\_ 50.1 Unit shall have a MASTER STATION David Clark U3800 vehicle intercom system.
- \_\_\_ \_\_\_ 50.2 The unit shall have a 12 VDC power source in-truck electrical system.
- \_\_\_ \_\_\_ 50.3 The unit shall contain controls, power input and remote output, plus two (2) headset jacks.
- \_\_\_ \_\_\_ 50.4 The unit shall be of rugged heavy gauge polycarbonate (-80 to + 212 F.) housing with all controls, connectors and weather tight covers.
- \_\_\_ \_\_\_ 50.5 The unit shall have less than 300 milliamp current draw.
- \_\_\_ \_\_\_ 50.6 The intercom system shall be a four (4) station intercom system.
- \_\_\_ \_\_\_ 50.7 The remote head set station shall be a David Clark U3802 and U3801 via C38 jumper cord and have a headset jack with listen volume control.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

- \_\_\_ \_\_\_ 50.8 The remote headset shall have the same housing and weather tight design as MASTER STATION.
- \_\_\_ \_\_\_ 50.9 Two (2) dual ear headsets for the rear operators shall be behind-the-head style to accommodate safety hats or helmets.
- \_\_\_ \_\_\_ 50.9.1 They shall provide maximum noise attenuation for hearing protection and clear isolated reception M-1A noise canceling microphone that provides clear transmission at normal voice levels.
- \_\_\_ \_\_\_ 50.9.2 A single ear headset shall have microphone on/off switch that allows hands free communication for the driver.
- \_\_\_ \_\_\_ 50.9.3 The headsets shall have a five foot (extended) coil cord with weather protected PJ051 plug.
- \_\_\_ \_\_\_ 50.10 The unit shall have two conductor shielded power cord, twenty feet.
- \_\_\_ \_\_\_ 50.10.1 Connects David Clark U3800 to power source.
- \_\_\_ \_\_\_ 50.10.2 One end of the power cord shall be stripped and tinned for connection to the truck battery of fuse.
- \_\_\_ \_\_\_ 50.11 The unit shall have one (1) David Clark C38-12 jumper cord and one (1) C38-75 jumper cord.
- \_\_\_ \_\_\_ 50.11.1 Jumper cords shall have four conductor shielded with MS screw-on (pin) connectors.
- \_\_\_ \_\_\_ 50.11.2 Connects MASTER STATION and MODULES.

## **51. ELECTRONIC SKIP LINE CONTROLLER**

- \_\_\_ \_\_\_ 51.1 The road marking machine shall include a Graco Model 238-050 Programmable Skipline Controller. (OR APPROVED EQUAL).
- \_\_\_ \_\_\_ 51.1.1 The signal source shall be logic level pulsing unit driven by a pulse generator mounted off the drive line
- \_\_\_ \_\_\_ 51.1.2 The 12 volt DC power for the system shall be provided by the provided by the airless unit and be separately fused.
- \_\_\_ \_\_\_ 51.2 The skip line controller shall have a single, integral emergency system shut down switch that (from the operator's position) shuts down the skipline controller, the engine, all airless pumps, the compressor, the hydraulic system and all other active systems on the road marking machine.
- \_\_\_ \_\_\_ 51.3 The controller shall protected by a 20 amp, 32 V, type AGC fuse.
- \_\_\_ \_\_\_ 51.3.1 The 20amp fuse shall also protect the 12 volt hydraulic oil cooling fan, all electro-mechanical solenoid air valves, proximity sensors for the pumps, and the gun disable proximity sensor control while in the storage position.
- \_\_\_ \_\_\_ 51.4 The skip line controller shall be further electrically protected by a 4 amp, 32 V type AGC fuse.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

\_\_\_ \_\_\_

51.5 A **POWER ON/OFF SWITCH** that in the **ON** position enables battery DC power to the skipline controller.

\_\_\_ \_\_\_

51.5.1 The **OFF** position shall remove power from the skipline controller.

\_\_\_ \_\_\_

51.5.2 For additional safety, when the skipline controller is in the **OFF** position the road marking machine's engine shall be disabled and incapable of being started.

\_\_\_ \_\_\_

51.6 A total of three (3), three-way **PAINT GUN** switches to allow the choice (**SKIP-OFF-SOLID**) for activation of any three paint striping and bead guns.

\_\_\_ \_\_\_

51.7 **RESET/HOLD** switch - In the **HOLD** position, guns 1,2 and 3 disabled "and" the internal cycle counter shall be reset.

\_\_\_ \_\_\_

51.7.1 In the **RESET** position the switch shall reset the internal cycle counter without affecting the solid line striping activity.

\_\_\_ \_\_\_

51.8 A **ADVANCED/RETARD** switch for adjusting the skipline position to accurately match a previously painted skipline.

\_\_\_ \_\_\_

51.8.1 **ADVANCE** shall move the dashed line forward, while **RETARD** shall move the line backwards.

\_\_\_ \_\_\_

51.8.2 The line position shall be shifted, in the desired direction, no more than 1.2" every time the **ADVANCE/RETARD** switch is toggled.

\_\_\_ \_\_\_

51.9 **BEADS ON/BEADS OFF/TEST** switch - In the **BEADS ON** position, the bead guns shall be enabled with the paint guns.

\_\_\_ \_\_\_

51.9.1 In the **BEADS OFF** position, the paint guns will operate without actuation of the bead guns.

\_\_\_ \_\_\_

51.9.2 In the **TEST** position, the guns shall be momentarily actuated without paint gun actuation for flow rate purposes and for visual testing that the bead guns are working.

\_\_\_ \_\_\_

51.10 The skipline controller shall have **AUTO CYCLE SETUP** mode to allow the measurement and calculation of a previously painted skipline patterns from the drivers/operators position.

\_\_\_ \_\_\_

51.10.1 Calculated measurements are automatically placed in the paint and cycle length menu.

\_\_\_ \_\_\_

51.11 A **SYSTEM DELAY ON/OFF** feature that is in the **OFF** position shall allow the guns to respond immediately.

\_\_\_ \_\_\_

51.11.1 In the **SYSTEM DELAY ON** position, actuation of the **PAINT GUN** Switches and the **RESET/HOLD** switch shall be delayed by a preset delay distance.

Company Name\_\_\_\_\_

Meets Specs.

Yes No

- |       |         |   |
|-------|---------|---|
| _____ | 51.12   | The internal menu of the skipline controller shall include the following:   |
| _____ | 51.12.1 | The main <b>SCREEN MENU</b> of the internal menu shall include continuous MPH readout, the painted skip line distance and the total skip cycle distance (paint and skip), plus a "P" to indicate the status of the skip cycle.  |
| _____ | 51.12.2 | The <b>COUNTER MENU</b> shall measure the actual linear footage applied by each gun.  |
| _____ | 51.12.3 | Each gun shall have its own registry column to include individual totals for guns 1, 2 and 3 to include linear footage of skip lines, linear footage of single solid lines and linear footage of double solid lines.  |
| _____ | 51.12.4 | All figures shall be resetable.   |
| _____ | 51.13   | <b>SYSTEM DELAY SETUP MENU</b> shall indicate whether the delay is on or off.   |
| _____ | 51.13.1 | In addition the programmable delay distance shall be indicated.   |
| _____ | 51.14   | <b>PREMARK MENU</b> shall allow the road marking machine to apply a programmable, small, preset amount of paint and second preset amount of paint to highlight the beginning and the end of a specified length for pre-marking for roadway tape or thermoplastic application. |
| _____ | 51.15   | <b>SYSTEM CALIBRATION MENU</b> shall be used to simply calibrate the system with the touch of one button.   |
| _____ | 51.16   | <b>SYSTEM CONFIGURATION MENU</b> shall offer the choice of metric or standard units of measure.   |
| _____ | 51.17   | <b>DISPLAY CONTRAST ADJUSTMENT MENU</b> shall allow the operator to adjust the LCD display's visual contrast to the available light conditions.   |
| _____ | 51.18   | <b>SKIP CYCLE START SETUP</b> shall allow the operator the choice of starting the cycle with paint or with the space.   |
| _____ | 51.19   | An <b>AUDIBLE SPEED ALARM</b> shall be provided to allow the operator to set speed parameters to work within.   |
| _____ | 51.19.1 | A rapid beep shall sound upon exceeding a preset high speed and a slower beep will sound upon falling below the preset lower limit.   |
| _____ | 51.19.2 | Both upper and lower limits may be reset, at any time, within a range of 2 to 15 MPH.   |
| _____ | 51.20   | The controller shall have provision to delay the paint gun on and off actuation time as well as provisions for the bead on and off delay.   |
| _____ | 51.21   | The controller shall have an integral female plug jack port to allow the future addition of the optional remote plug-in MPH display.  |

Company Name \_\_\_\_\_

Meets Specs.

Yes No

- |     |     |         |   |
|-----|-----|---------|---|
| ___ | ___ | 51.22   | The controller shall have a secondary integral female plug jack port to allow the use of the included remote on/off finger triggering device (with 6' cable and male plug) to ensure accurate skip or solid line retracing regardless of the previously used skipline controller. |
| ___ | ___ | 51.23   | The controller shall be protected from reverse polarity and noise spikes.   |
| ___ | ___ | 51.24   | Operating temperature range for the controller shall be 32-130 degrees F.   |
| ___ | ___ | 51.25   | The face of the skipline controller shall have a matte finish decal to eliminate glare from the reflective or light sources.  |
| ___ | ___ | 51.26   | Furnished with the system will be an additional cab mounted Graco 238-050 Programable Skipline Controller. (OR APPROVED EQUAL)  |
| ___ | ___ | 51.26.1 | This cab mounted controller shall be provided for the capability of "ONE MAN OPERATION" and shall meets all requirement as described in Item 49.1 thru 49.25.   |
| ___ | ___ | 51.27   | <b><u>A in-cab MASTER SAFETY SHUTDOWN switch must be provided.</u></b>  |
| ___ | ___ | 51.27   | This master switch will override any other control systems and provide for immediate shutdown of all active striper systems.  |

## **52. STRIPER FINISH**

- |     |     |        |   |
|-----|-----|--------|---|
| ___ | ___ | 52.1   | The complete machine and all components, including tanks, compressor, etc. shall have the following minimum protective coating applied: |
| ___ | ___ | 52.1.1 | One prime coat and one finish coat of paint, unless chromium plated or galvanized.  |
| ___ | ___ | 52.1.2 | The prime cost material shall be specifically compounded for the respective metals to which it is applied.                              |
| ___ | ___ | 52.1.3 | Finish Coat Color - White, PPG Delta Grade High Solids Urethane, unless otherwise stated.   |
| ___ | ___ | 52.1.4 | All wooded components shall receive one coat of primer sealer and one coat of sealer enamel.  |
| ___ | ___ | 52.1.5 | All fasteners shall be chromium or cadmium plated.  |

Company Name \_\_\_\_\_

Meets Specs.

Yes No

**53. DIMENSIONS AND WEIGHT**

- \_\_\_ \_\_\_ 53.1 The fully loaded and operational striper **MUST NOT** exceed the Gross Axle or Gross Vehicle Weight Ratings as indicated on the Final-Stage Manufacture Label as per National Highway Traffic Safety Administration requirements.
- \_\_\_ \_\_\_ 53.2 Length 220 inches maximum.
- \_\_\_ \_\_\_ 53.3 Width 100 inches maximum.
- \_\_\_ \_\_\_ 53.4 Height 132 inches maximum.

**54. MANUALS DIAGRAMS AND SCHEMATICS**

- \_\_\_ \_\_\_ 54.1 Complete service and overhaul manual for Chassis/Cab.
- \_\_\_ \_\_\_ 54.2 Complete service, overhaul, operator and parts manuals including appropriate diagrams and schematics for the following striper systems and components.
- \_\_\_ \_\_\_ 54.2.1 Hydraulic and air systems.
- \_\_\_ \_\_\_ 54.2.2 Electrical system.
- \_\_\_ \_\_\_ 54.2.3 Auxiliary power system.
- \_\_\_ \_\_\_ 54.2.4 Paint handling equipment.
- \_\_\_ \_\_\_ 54.2.5 Guidance system.
- \_\_\_ \_\_\_ 54.2.6 Valves.
- \_\_\_ \_\_\_ 54.2.7 Pressure bead tank.
- \_\_\_ \_\_\_ 54.2.8 Paint guns.
- \_\_\_ \_\_\_ 54.2.9 Air compressor.
- \_\_\_ \_\_\_ 54.2.10 Glass sphere guns.
- \_\_\_ \_\_\_ 54.2.11 Skipline mechanism.
- \_\_\_ \_\_\_ 54.2.12 Intercom system.
- \_\_\_ \_\_\_ 54.2.13 Solvent tank.
- \_\_\_ \_\_\_ 54.2.14 Carriage assemblies.

**55. WARRANTY GUARANTEE AND CONDITIONS**

- \_\_\_ \_\_\_ 55.1 Striper unit warranty as follows:
- \_\_\_ \_\_\_ 55.1.1 As a minimum the City of Lincoln requires the striper to be guaranteed against defective materials and workmanship for a minimum period of one (1) year after acceptance of the machine.
- \_\_\_ \_\_\_ 55.1.1.1 The basic standard and extended warranties **MUST** be provided by the original equipment manufacturer.
- \_\_\_ \_\_\_ 55.1.1.2 Coverage provided through independent warranty companies “aftermarket warranties” are not acceptable.
- \_\_\_ \_\_\_ 55.1.1.3 Complete details of warranty must accompany your bid.



Company Name\_\_\_\_\_

Meets Specs.

Yes No

\_\_\_ \_\_\_

55.1.2 During the warranty period, it shall be the responsibility of the seller to perform warranty repairs F.O.B. Fleet Services Garage, 901 North 6<sup>th</sup> Street, Lincoln, NE. or at the sellers discretion, to transport the equipment to the factory-authorized repair facility for such repairs.

\_\_\_ \_\_\_

55.1.2.1 All transportation costs associated with such warranty repairs will be paid by the seller.

\_\_\_ \_\_\_

55.1.3 The seller shall be responsible for all warranties as accepted by the City of Lincoln in the award of this bid.

\_\_\_ \_\_\_

55.1.3.1 This responsibility will include all sub-contracted items as related to warranty in this bid.

\_\_\_ \_\_\_

55.1.4 Warranty shall include 100% parts and labor.

\_\_\_ \_\_\_

55.2 Cab/Chassis warranty as follows:

55.2.1 As a minimum the City of Lincoln requires the Cab/Chassis be guaranteed against defective materials and workmanship for a minimum period of 3 years or 36,000 miles whichever comes first, from the date of acceptance.

\_\_\_ \_\_\_

55.2.1.1 The basic standard and extended warranties **MUST** be provided by original equipment manufacture.

\_\_\_ \_\_\_

55.2.1.2 Coverage provided through independent warranty companies “aftermarket warranties” are not acceptable.

\_\_\_ \_\_\_

55.2.1.3 Complete details of warranty must accompany your bid.

\_\_\_ \_\_\_

55.2.2 Warranty shall include 100 % parts and labor.

## **56. DELIVERY AND TRAINING**

\_\_\_ \_\_\_

56.1 The Highway Striper shall be delivered F.O.B Fleet Services Garage, 901 North 6<sup>th</sup>, Lincoln, NE. completely assembled, tested and ready for operation.

\_\_\_ \_\_\_

56.2 The original manufacture’s statement of origin, a service authorization card, and properly executed service and warranty policy shall accompany the vehicle when delivered.

\_\_\_ \_\_\_

56.3 All manuals and miscellaneous equipment as described in these specifications shall be provided at the time of delivery.

Company Name \_\_\_\_\_

Meets Specs.

Yes No

\_\_\_ \_\_\_

56.4 It shall be the responsibility of the seller to provide a factory authorized technician trained in the maintenance and operation of the Highway Striper, to provide a minimum of four (4) days of instruction to City of Lincoln personnel in proper operation and maintenance at the time of delivery. It shall also be the responsibility of the seller to provide a minimum of two (2) days of season-end cleaning, component rebuild (ie. paint guns, paint pumps, bead guns) and storage preparation at a date to be determined by the City of Lincoln.

\_\_\_ \_\_\_

56.4.1 The training provided will be at no cost to the City of Lincoln.

56.5 It is the intent of the City of Lincoln to utilize this unit in the 2004 painting season, so the earliest possible delivery is requested and will be a consideration in the award of bid.

56.5.1 Please state your estimated delivery time after receipt of order:

\_\_\_\_\_ Days

**57. EQUIPMENT DEMONSTRATION**

\_\_\_ \_\_\_

57.1 All responding bidders shall make available for demonstration a Striper of similar type and design as the unit bid for evaluation of both the machines performance and compatibility with the intended application.

\_\_\_ \_\_\_

57.1.1 This will be a full "wet" operational demonstration with a portion including equipment operation by City if Lincoln employees.

\_\_\_ \_\_\_

57.2 Such evaluation shall be for a minimum period of one (1) day and be conducted in Lincoln NE.

\_\_\_ \_\_\_

57.3 The seller may provide alternate locations for the demonstration other than Lincoln NE. but will be responsible for all associated food, lodging and transportation costs for two (2) City of Lincoln employees to attend.

\_\_\_ \_\_\_

57.4 The equipment demonstrations must be conducted within 30 days following the bid opening.

**58. OPTIONS (please price each separately)**

\_\_\_ \_\_\_

58.1 Extended Cab/Chassis warranty for full coverage to 6 years or 60,000 miles whichever comes first.

\_\_\_ \_\_\_

58.2 Two (2) polished aluminum diamond plate, weatherproof tool boxes of adequate size supplied and installed under the operator seats. Full face, bottom hinged door with latch and integral lock.

\_\_\_ \_\_\_

58.3 All special tools needed for adjustments or disassembly of various striper components.

\_\_\_ \_\_\_

58.4 Remote Speed Indicator to include the following:

A remote LCD display (Graco P/N 238-963) that includes a 6' output cable with male end to plug directly into the skipline controller. The numerical readout on the remote LCD display will feature individual numerical characters with a minimum size of .6" in height.

Company Name \_\_\_\_\_

Meets Specs.

Yes No

\_\_\_ \_\_\_

58.5 Second Stencil Gun Kit to include the following:

The second stencil gun kit (Graco P/N 238-958) will include a Graco Flex Gun P/N 248-157, 221-517 RAC IV airless tip, 50' of 1/4" airless hose with stainless steel wetted metallurgy 18" tip extension, plus a quick disconnect cast aluminum gun holder and clamp assembly.

\_\_\_ \_\_\_

58.6 Hand Bead Gun Accessory to include the following:

The hand bead gun accessory kit (Graco P/N 238-957) will include all components to modify either stencil gun to simultaneously apply reflectorized glass beads and paint. The hand gun kit will include a bead deflector, transfer tube, bead shut off valve, 3/8" x 50' nylon transfer hose and the tank fitting.

\_\_\_ \_\_\_

58.7 Spare Guns to include the following:

One additional "spare" paint gun (Graco P/N 238-332) meeting the same requirement as described in Item #36 of these specifications.

One additional "spare" bead gun (Graco P/N 238-329) meeting the same requirements as described in Item #38 of these specifications.

\_\_\_ \_\_\_

58.8 Spare Parts Kit to include the following:

One additional "spare" paint gun (Graco P/N 238-332) meeting the same requirements as described in Item #36 of these specifications. Three additional "spare" material nozzles, three paint gun repair kits.

One additional "spare" bead gun (Graco P/N 238-329) meeting the same requirements as described in item #38 of these specifications.

Three bead gun repair kits.

In addition, three solenoid valves and six solenoid repair kits will be provided.

All parts included in the "Spare Parts Kit" will be identical to the in-place installed parts used in the construction of the striper unit. Spare parts herein furnished will carry the same level of warranty as installed items.

\_\_\_ \_\_\_

58.9 Paint Supply to include the following:

The unit will be configured to draw material from either a 55 gallon drum or twin-pack tote container in lieu of paint containers listed in the main specifications.

\_\_\_ \_\_\_

58.10 Additional Holographic Sight to include the following:

A second holographic sight to work in conjunction with sighting system indicated in Item # 47 of these specifications. This would provide for both center-line and edge-line alignment without the need to reposition the sight.

Company Name \_\_\_\_\_

Meets Specs.

Yes No

- |      |  |
|------|--|
| ____ | 58.11 Aluminum top, operator station(s) full width canopy, not to exceed maximum height as specified in Item # 53 of these specifications.<br>58.11.1 Drawings and photos of the proposed canopy shall be provided with the bid.   |
| ____ | 58.12 Air ride rear operator seats in lieu of mechanical or fixed design.  |
| ____ | 58.13 Diesel powered auxiliary engine in lieu of gasoline powered as specified, meeting all equipment performance requirements and utilizing chassis fuel supply.  |
| ____ | 58.14 Front mounted, adjustable pointer guide as follows:<br>58.14.1 Constructed of tubular steel with pneumatic rubber-tired caster wheel and adjustable pointer guide and flag socket located at it's forward end.<br>58.14.2 Mounted directly to the front bumper, designed so it can be easily swung and secured for transport.<br>58.14.3 Pointer shall be easily converted for either centerline or edgeline control.<br>58.14.4 Drawings and photos of the proposed front guide system shall be provided with the bid.  |
| ____ | 58.15 Bead filling system as follows:<br>58.15.1 Minimum bead loading capacity of 250 lbs. per minute.<br>58.15.2 Loading to be accomplished by creating a vacuum in the bead tank, with beads to be drawn through a suction hose into the bead tank without contaminating the vacuum unit.<br>58.15.3 The speed of the unit shall be operator controlled and a muffled to assure quite operation at all times.<br>58.15.4 This system to be of jet pump type with no moving parts.<br>58.15.5 The filling system shall include a 12' long, 2" ID suction hose with all the necessary fittings, including a new, unused 55 gallon metal drum with a combination bag splitter and strainer top.<br>58.15.6 Air supply for this system is <u>not</u> required. |
| ____ | 58.16 One (1) polished aluminum diamond plate, weather proof under body tool box with latch and integral lock, of the largest cu. ft. for mounting space available.  |
| ____ | 58.17 Ver-Mac Model #TM-548 message board in lieu of sign board as specified in Item #48.9.<br>58.17.1 Hand held programable controller wired into the cab.<br>58.17.2 The controller to be capable of programing chevrons, arrows and diamonds with the options for stationary, flashing and sequencing.  |

Company Name\_\_\_\_\_

Meets Specs.

\_\_\_\_

58.18 Post-Award Conference

Travel, food and lodging expenses paid by the successful bidder for two (2) City of Lincoln employees to review, finalize and approve the design of the vehicle prior to commencement of fabrication.

58.18.1 This approval process will be done at the successful bidders manufacturing facility and will be at no additional cost to the City of Lincoln beyond the amount indicated with the acceptance of this option.

## **ALTERNATE PROPOSALS**

1. Bids for new demonstrator equipment may be offered for consideration.

1.1 If an alternate proposal is offered bidders shall submit the offer as per Item #10 “Brand Names” in the INSTRUCTIONS TO BIDDERS portion of this bid document.

1.2 The City of Lincoln shall be the sole authority to determine what is in the best interest of the City.

2. Bidders **MUST** attach to the specification documents on Company letterhead a statement identifying the manufacture and brand name of each proposed alternate, plus a complete description of the alternate item and provide all illustrations and information as requested in Item # 4 “Responsibility of Bidders” in the EQUIPMENT SPECIFICATIONS portion of this bid document.

2.1 The bidder must indicate any variances by item number from the specification document **no matter how slight.**

2.2 Bidder must fully explain the variances from the specification document to qualify an alternate bid for consideration.

**PROPOSAL**  
**SPECIFICATION NO. 04-106**  
**BID OPENING TIME: 12:00 NOON**  
**DATE: Wednesday, April 21, 2004**

The undersigned, having full knowledge of the requirements of the City of Lincoln for the below listed phases and the contract documents (which include Notice, Instructions, this Proposal, Specifications, Contract, and any and all addenda) and all other conditions of the Proposal, agrees to enter into a contract with the City the below listed fees for the performance of this Specification, complete in every respect, in strict accordance with the contract documents at and for fees listed below.

**ADDENDA RECEIPT:** The receipt of addenda to the specification numbers \_\_\_\_\_ through \_\_\_\_\_ are hereby acknowledged. Failure of any submitter to receive any addendum or interpretation of the specifications shall not relieve the submitter from any obligations specified in the request. All addenda shall become part of the final contract document.

**AIRLESS TRUCK-MOUNTED HIGHWAY STRIPER**  
**BIDDING SCHEDULE**

<b><u>ITEM</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>QUANTITY</u></b>	<b><u>UNIT</u></b>	<b><u>TOTAL</u></b>
1.	Airless Truck-Mounted Highway Striper	One (1)	\$_____	\$_____
	Chassis Mfg. _____			
	Chassis Model# _____			
	Striper Mfg. _____			
	Striper Model# _____			
2.	Options as Indicated in Section # 58.			
	58.1 Extended Warranty		\$_____	
	58.2 Under Seat Tool Boxes		\$_____	
	58.3 Special Tools		\$_____	
	58.4 Remote Speed Indicator		\$_____	
	58.5 Stencil Gun Kit		\$_____	
	58.6 Hand Bead Gun Accessory		\$_____	
	58.7 Spare Guns		\$_____	
	58.8 Spare Parts Kit		\$_____	
	58.9 Paint Supply		\$_____	
	58.10 Additional Holographic Sight		\$_____	
	58.11 Aluminum Canopy		\$_____	
	58.12 Air Ride Rear Operator Seats		\$_____	
	58.13 Diesel Power Auxiliary Engine		\$_____	
	58.14 Front Mounted Pointer		\$_____	
	58.15 Bead Fill System		\$_____	
	58.16 Underbody Tool Box		\$_____	
	58.17 Message Board		\$_____	
	58.18 Post-Award Conference		\$_____	
	Options Total		\$_____	
	Total Cost of Base Unit Plus Options			\$_____

3. Delivery Schedule After Receipt of Order \_\_\_\_\_ Days.

**Clarification:**

A. Exceptions to any part of this bid document shall be clearly noted by Item# on your company letter head and signed by the appropriate authority.

BID SECURITY REQUIRED: \_\_\_\_\_YES (check yes or no)  
  X  NO

AFFIRMATIVE ACTION PROGRAM: Successful bidder will be required to comply with the provisions of the City's Affirmative Action Policy (Contract Compliance, Sec. 1.16). The Equal Opportunity Officer will determine compliance or non-compliance with the City's policy upon a complete and substantial review of successful bidder's equal opportunity policies, procedures and practices.

The undersigned signatory for the bidder represents and warrants that he has full and complete authority to submit this proposal to the City, and to enter into a contract if this proposal is accepted.

**RETURN 2 COMPLETE COPIES OF PROPOSAL AND SUPPORTING MATERIAL.  
MARK OUTSIDE OF BID ENVELOPE: SEALED BID FOR SPEC. 04-106**

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
BY (Signature)

\_\_\_\_\_  
STREET ADDRESS or P.O. BOX

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
CITY, STATE      ZIP CODE

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
TELEPHONE No.      FAX No.

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
EMPLOYER'S FEDERAL I.D. NO.  
OR SOCIAL SECURITY NUMBER

\_\_\_\_\_  
ESTIMATED DELIVERY DAYS

\_\_\_\_\_  
E-MAIL ADDRESS

\_\_\_\_\_  
TERMS OF PAYMENT

Bids may be inspected in the Purchasing Division offices during normal business hours, after tabulation by the purchasing agent. If you desire a copy of the bid tabulation to be mailed to you, you must enclose a self-addressed stamped envelope with your bidding documents. Bid tabulations can also be viewed on our website at: <http://www.ci.lincoln.ne.us/city/finance/purch/specindx.htm>



# **INSTRUCTIONS TO BIDDERS**

## **CITY OF LINCOLN, NEBRASKA**

### **PURCHASING DIVISION**

#### **1. BIDDING PROCEDURE**

- 1.1 Bidder shall submit two (2) complete sets of the bid documents and all supporting material. All appropriate blanks shall be completed. Any interlineation, alteration or erasure on the specification document shall be initialed by the signer of the bid. Bidders shall not change the proposal form nor make additional stipulations on the specification document. Any amplified or qualifying information shall be on the bidder's letterhead and firmly attached to the specification document.
- 1.2 Bid prices shall be submitted on the Proposal Form included in the bid document.
- 1.3 Bidders may submit a bid on an "all or none" or "lump sum" basis, but should also submit a quotation on an item-by-item basis. Bidding documents shall be clearly marked indicating the kind of proposal being submitted.
- 1.4 Each bid must be legibly printed in ink or by typewriter, include the full name, business address, and telephone number of the bidder; and be signed in ink by the bidder.
- 1.5 A bid by a firm or organization other than a corporation must include the name and address of each member.
- 1.6 A bid by a corporation must be signed in the name of such corporation by a duly authorized official thereof.
- 1.7 Any person signing a bid for a firm, corporation, or other organization must show evidence of his authority so to bind such firm, corporation, or organization.
- 1.8 Bids received after the time and date established for receiving bids will be rejected.

#### **2. BIDDER'S SECURITY**

- 2.1 Bid security, as a guarantee of good faith, in the form of a certified check, cashier's check, or bidder's bond, may be required to be submitted with this bid document, as indicated on the Proposal Form.
- 2.2 If alternate bids are submitted, only one bid security will be required, provided the bid security is based on the amount of the highest gross bid.
- 2.3 Such bid security will be returned to the unsuccessful bidders when the award of bid is made.
- 2.4 Bid security will be returned to the successful bidder(s) as follows:
  - 2.4.1 For single order bids with specified quantities: upon the delivery of all equipment or merchandise, and upon final acceptance by the City.
  - 2.4.2 For all other contracts: upon approval by the City of the executed contract and bonds.
- 2.5 City shall have the right to retain the bid security of bidders to whom an award is being considered until either:
  - 2.5.1 A contract has been executed and bonds have been furnished.
  - 2.5.2 The specified time has elapsed so that the bids may be withdrawn.
  - 2.5.3 All bids have been rejected.

- 2.6 Bid security will be forfeited to the City as full liquidated damages, but not as a penalty, for any of the following reasons, as pertains to this specification document:

- 2.6.1 If the bidder fails to deliver the equipment or merchandise in full compliance with the accepted proposal and specifications.
- 2.6.2 If the bidder fails or refuses to enter into a contract on forms provided by the City, and/or if the bidder fails to provide sufficient bonds or insurance within the time period as established in this specification document.

#### **3. EQUAL OPPORTUNITY**

- 3.1 Each bidder agrees that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, ancestry, disability, age, or marital status. Bidder shall fully comply with the provisions of Chapter 11.08 of the Lincoln Municipal Code.
- 3.2 Successful bidder will be required to comply with the provisions of the City's Affirmative Action Policy (Contract Compliance, Sec. 1.16).
- 3.3 The Equal Opportunity Officer will determine compliance or non-compliance with the City's Affirmative Action Policy upon a complete and substantial review of successful bidder's equal opportunity policies, procedures and practices.

#### **4. DATA PRIVACY**

- 4.1 Bidder agrees to abide by all applicable State and Federal laws and regulations concerning the handling and disclosure of private and confidential information concerning individuals and corporations as to inventions, copyrights, patents and patent rights.
- 4.2 The bidder agrees to hold the City harmless from any claims resulting from the bidder's unlawful disclosure or use of private or confidential information.

#### **5. BIDDER'S REPRESENTATION**

- 5.1 Each bidder by signing and submitting a bid, represents that the bidder has read and understands the specification documents, and the bid has been made in accordance therewith.
- 5.2 Each bidder for services further represents that the bidder is familiar with the local conditions under which the work is to be done and has correlated the observations with the requirements of the bid documents.

#### **6. INDEPENDENT PRICE DETERMINATION**

- 6.1 By signing and submitting this bid, the bidder certifies that the prices in this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor; unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder prior to bid opening directly or indirectly to any other bidder or to any competitor; no attempt has been made, or will be made, by the bidder to induce any person or firm to submit, or not to submit, a bid for the purpose of restricting competition.

## **7. CLARIFICATION OF SPECIFICATION DOCUMENTS**

- 7.1 Bidders shall promptly notify the Purchasing Agent of any ambiguity, inconsistency or error which they may discover upon examination of the specification documents.
- 7.2 Bidders desiring clarification or interpretation of the specification documents shall make a written request which must reach the Purchasing Agent at least seven (7) calendar days prior to the date and time for receipt of bids.
- 7.3 Interpretations, corrections and changes made to the specification documents will be made by written addenda.
- 7.4 Oral interpretations or changes to the Specification Documents made in any other manner, will not be binding on the City; and bidders shall not rely upon such interpretations or changes.

## **8. ADDENDA**

- 8.1 Addenda are written instruments issued by the City prior to the date for receipt of bids which modify or interpret the specification document by addition, deletion, clarification or correction.
- 8.2 Addenda will be mailed or delivered to all who are known by the City to have received a complete set of specification documents.
- 8.3 Copies of addenda will be made available for inspection at the office of the Purchasing Agent.
- 8.4 No addendum will be issued later than forty-eight (48) hours prior to the date and time for receipt of bids, except an addendum withdrawing the invitation to bid, or an addendum which includes postponement of the bid.
- 8.5 Bidders shall ascertain prior to submitting their bid that they have received all addenda issued, and they shall acknowledge receipt of addenda on the proposal form.

## **9. ANTI-LOBBYING PROVISION**

- 9.1 During the period between the bid close date and the contract award, bidders, including their agents and representatives, shall not directly discuss or promote their bid with any member of the City Council or City Staff except in the course of City-sponsored inquiries, briefings, interviews, or presentations, unless requested by the City.

## **10. BRAND NAMES**

- 10.1 Wherever in the specifications or proposal form brand names, manufacturer, trade name, or catalog numbers are specified, it is for the purpose of establishing a grade or quality of material only; and the term "or equal" is deemed to follow.
- 10.2 It is the bidder's responsibility to identify any alternate items offered in the bid, and prove to the satisfaction of the City that said item is equal to, or better than, the product specified.
- 10.3 Bids for alternate items shall be stated in the appropriate brand on the proposal form, or if the proposal form does not contain blanks for alternates, bidder MUST attach to the specification documents on Company letterhead a statement identifying the manufacturer and brand name of each proposed alternate, plus a complete description of the alternate items including illustrations, performance test data and any other information necessary for an evaluation. The bidder must indicate any variances by item number from the specification

document no matter how slight. Bidder must fully explain the variances from the specification document, since brochure information may not be sufficient.

- 10.4 If variations are not stated in the proposal, it will be assumed that the item being bid fully complies with the City's specifications.

## **11. DEMONSTRATIONS/SAMPLES**

- 11.1 Bidders shall demonstrate the exact item(s) proposed within seven (7) calendar days from receipt of such request from the City.
- 11.2 Such demonstration can be at the City delivery location or a surrounding community.
- 11.3 If bidder does not have an item in the area, it will be at the bidder's expense to send appropriate City personnel to the nearest location to view and inspect proposed item(s).
- 11.4 If items are small and malleable, and the bidder is proposing an alternate product, the bidder MUST supply a sample of the exact item. Samples will be returned at bidder's expense after receipt by the City of acceptable goods. Bidders must indicate how samples are to be returned.

## **12. DELIVERY**

- 12.1 Each bidder shall state on his proposal form the date upon which he can make delivery of all equipment or merchandise. Time required for delivery is hereby made an essential element of the bid.
- 12.2 The City reserves the right to cancel orders, or any part thereof, without obligation, if delivery is not made within the time(s) specified on the proposal form.
- 12.3 All bids shall be based upon **inside** delivery of the equipment or merchandise F.O.B. the City at the location specified by the City, with all transportation charges paid.

## **13. WARRANTIES, GUARANTEES AND MAINTENANCE**

- 13.1 Copies of the following documents must accompany the bid proposal for all items being bid:
  - 13.1.1 Manufacturer's warranties and/or guarantees.
  - 13.1.2 Bidder's maintenance policies and associated costs.
- 13.2 As a minimum requirement of the City, the bidder will guarantee in writing that any defective components discovered within a one (1) year period after the date of acceptance shall be replaced at no expense to the City. Replacement parts of defective components shall be shipped at no cost to the City. Shipping costs for defective parts required to be returned to the bidder shall be paid by the bidder.
- 13.3 Bidder Warrants and represents to the City that all software/firmware/hardware/equipment/systems developed, distributed, installed or programmed by Bidder pursuant to this Specification and Agreement.
  - 13.3.1 That all date recognition and processing by the software/firmware/hardware/equipment/system will include the four-digit-year format and will correctly recognize and process the date of February 29, and any related data, during Leap years; and
  - 13.3.2 That all date sorting by the software /firmware/hardware/equipment/system that includes a "year category" shall be done based on the four-digit-year format. Upon being notified in writing by the City of the failure of any software/ firmware/

hardware /equipment /systems to comply with this Specification and Agreement, Contractor will, within 60 days and at no cost to the City, replace or correct the non-complying software/ firmware/ hardware/ equipment/ systems with software/firmware/ hardware/equipment/ systems that does comply with this Specification and Agreement.

- 13.3.3 No Disclaimers: The warranties and representations set forth in this section 13.3 shall not be subject to any disclaimer or exclusion of warranties or to any limitations of Licensor's liability under this Specification and Agreement.

#### **14. ACCEPTANCE OF MATERIAL**

- 14.1 All components used in the manufacture or construction of materials, supplies and equipment, and all finished materials, shall be new, the latest make/model, of the best quality, and the highest grade workmanship.
- 14.2 Material delivered under this proposal shall remain the property of the bidder until:
- 14.2.1 A physical inspection and actual usage of this material is made and found to be acceptable to the City; and
- 14.2.2 Material is determined to be in full compliance with the specifications and accepted proposal.
- 14.3 In the event the delivered material is found to be defective or does not conform to the specification documents and accepted proposal, then the City reserves the right to cancel the order upon written notice to the bidder and return materials to the bidder at bidder's expense.
- 14.4 Successful bidder shall be required to furnish title to the material, free and clear of all liens and encumbrances, issued in the name of the City of Lincoln, Nebraska, as required by the specification documents or purchase orders.
- 14.5 Selling dealer's advertising decals, stickers or other signs shall not be affixed to equipment. Vehicle mud flaps shall be installed blank side out with no advertisements. Manufacturer's standard production forgings, stampings, nameplates and logos are acceptable.

#### **15. BID EVALUATION AND AWARD**

- 15.1 The signed bid proposal shall be considered an offer on the part of the bidder. Such offer shall be deemed accepted upon issuance by the City of purchase orders, contract award notifications, or other contract documents appropriate to the work.
- 15.2 No bid shall be modified or withdrawn for a period of ninety (90) calendar days after the time and date established for receiving bids, and each bidder so agrees in submitting the bid.
- 15.3 In case of a discrepancy between the unit prices and their extensions, the unit prices shall govern.
- 15.4 The bid will be awarded to the lowest responsive, responsible bidder whose proposal will be most advantageous to the City, and as the City deems will best serve their requirements.
- 15.5 The City reserves the right to accept or reject any or all bids; to request rebids; to award bids item-by-item, by groups, or "lump sum"; to waive irregularities and technicalities in bids; such as shall best serve the requirements and interests of the City.

#### **16. INDEMNIFICATION**

- 16.1 The bidder shall indemnify and hold harmless the City, its members, its officers and employees from and against all claims, damages, losses, and expenses, including, but not limited to attorney's fees arising out of or resulting from the performance of the contract, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property other than goods, materials and equipment furnished under this contract) including the loss or use resulting therefrom; is caused in whole or part by any negligent act or omission of the bidder, any subcontractor, or anyone directly or indirectly employed by any one of them or anyone for whose acts made by any of them may be liable, regardless of whether or not it is caused by a party indemnified hereunder.
- 16.2 In any and all claims against the City or any of its members, officers or employees by an employee of the bidder, any subcontractor, anyone directly or indirectly employed by any of them or by anyone for whose acts made by any of them may be liable, the indemnification obligation under paragraph 16.1 shall not be limited in any way by any limitation of the amount or type of damages, compensation or benefits payable by or for the bidder or any subcontractor under worker's or workmen's compensation acts, disability benefit acts or other employee benefit acts.

#### **17. TERMS OF PAYMENT**

- 17.1 Unless other specification provisions state otherwise, payment in full will be made by the City within thirty (30) calendar days after all labor has been performed and all equipment or other merchandise has been delivered, and all such labor and equipment and other materials have met all contract specifications.

#### **18. LAWS**

- 18.1 The Laws of the State of Nebraska shall govern the rights, obligations, and remedies of the Parties under this proposal and any agreement reached as a result of this process.